

Claims

1. A bucket (1) for crushing and screening stone and similar materials, comprising a scoop-shaped body (2) defining an inlet opening (3) for the stone to be crushed and an outlet (4) for the crushed stone, between which a direction of flow of the stone is defined, means for crushing the stone, the crushing means comprising a first jaw (5) and a second jaw (6) housed in the scoop-shaped body (2) and movable relative to one another, and means for moving the first jaw (5) relative to the second jaw (6), characterized in that the movement means can impart to the first jaw (5) a combined rotational and translational movement relative to the second jaw (6), in which a first component of the movement is away from and towards the second jaw (6) and a second component of the movement is substantially parallel to the direction of flow.
2. A bucket (1) according to Claim 1, comprising means (22) for adjusting the size of the cross-section of the outlet (4) and the movement of the first jaw (5):
3. A bucket (1) according to Claim 1 or Claim 2 in which the first jaw (5) and the second jaw (6) comprise respective first and second opposite ends (7, 8) which are positioned, with reference to the direction of flow, in the region of the inlet opening (3) and in the region of the outlet (4), respectively, the movement means acting on the first end (7) of the first jaw (5).
4. A bucket (1) according to Claim 3 in which the second end (8) of the first jaw (5) is coupled with means (22) for adjusting the size of the cross-section of the outlet (4) and the movement of the first jaw (5).
5. A bucket (1) according to any one of Claims 3 and 4 in which the movement means comprise at least one eccentric (15; 16) on which a sleeve (19) is coupled in a freely rotatable manner, the sleeve (19) being fixed firmly to the first end (7) of the first jaw (5).
6. A bucket (1) according to Claim 5 in which the movement means comprise two eccentrics (15, 16) moved by a shaft (14) driven by drive means (9), the two eccentrics (15, 16) being coupled with two bearings (17, 18) on which the sleeve (19) is fitted.
7. A bucket (1) according to any one of Claims 3 to 6 in which the adjustment means (22) comprise a strut (23) interposed at an adjustable inclination between the second end (8) of the first jaw (5) and the scoop-shaped body (2).

8. A bucket (1) according to Claim 7 in which the second end (8) of the first jaw (5) comprises a first channel (25) for housing a first end (24a) of the strut (23) in an orientable manner.
9. A bucket (1) according to Claim 8 in which a support (41) is mounted on the scoop-shaped body (2) and houses a set of removable spacers (34), the spacers (34) being
5 interposed between the support (41) and a second channel (33; 33') which houses a second end (24b) of the strut (23).
10. A bucket (1) according to Claim 9 in which the second end (24b) of the strut (23) is housed in the second channel (33; 33') in alternative operative positions, in order to
10 adjust the inclination between the strut (23) and the first jaw (5), at rest.
11. A bucket (1) according to one or more of the preceding claims in which each of the first jaw (5) and the second jaw (6) comprises a respective frame (5a, 6a) on which respective plates (5b, 6b) are fitted removably.
12. A bucket (1) according to Claim 11 in which a plurality of grooves (20) are formed
15 on facing surfaces of the plates (5b, 6b).
13. A bucket (1) according to Claim 12 in which the grooves (20) are parallel to one another and extend in the direction of the flow of the stone.
14. A bucket (1) according to Claim 13 in which the grooves (20) define a plurality of ribs (20a) and recesses (20b) alternating in succession in a manner such that a rib
20 (20a) of the first jaw (5) corresponds to a recess (20b) of the second jaw (6).
15. A bucket (1) according to one or more of the preceding claims in which the second jaw (6) is fixed firmly to the scoop-shaped body (2).
16. A bucket (1) according to one or more of Claims 7 to 15, comprising resilient means (30) suitable for resiliently urging the second end (8) of the first jaw (5) against
25 the strut (23).
17. A bucket (1) according to Claim 16, comprising means (51) for adjusting the load of the resilient means (30).
18. A bucket (1) according to one or more of the preceding claims, comprising vibrator means (50) disposed in the region of the inlet opening (3) for bringing about pulsed
30 vibration of the second jaw (6).